Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_ Per.: \_\_\_\_\_\_\_\_

**Day #1 Homework**

1. Perform a reflection across the *x*-axis. 2. Translate 1 unit right, 2 units down

(*x* +1, *y* – 2)

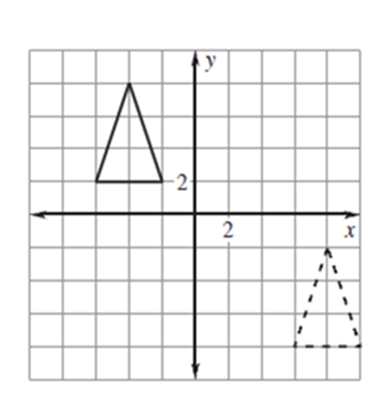
 

3. Rotate 180o about the origin. 4. Write the rule for the transformation below:

5. Write the rule for the transformation below: 6. Write the rule for the transformation below:

(dashed line triangle is the image)

**** 

**THERE IS A BACK! 🡪**

**Putting it all together…**

1. Rotation, reflection, and translation are congruence transformations because…

2. A dilation is a similarity transformation because…

3. True or False: Two figures are congruent if they can occupy the same space after a series of transformations.

4. True or False: A pre-image is dilated to produce an image. The pre-image and image will be congruent figures.

5. True or False: A pre-image is dilated to produce an image. The pre-image and image will have the same angle measurements.

**ANSWER KEY**

1. 2.

3. 4. rotation of 180o about the origin



5. six right, five down; (x + 6, y – 5)

6. dilation by scale factor of 2

1. Rotation, reflection, and translation are congruence transformations because **the pre-image and image are congruent: all corresponding side and angle measurements are the same.**

2. A dilation is a similarity transformation because **the pre-image and image are similar: all corresponding side measurements are in the same ratio and all angle measurements are the same.**

3. True or False: Two figures are congruent if they can occupy the same space after a series of transformations. **TRUE**

4. True or False: A pre-image is dilated to produce an image. The pre-image and image will be congruent figures. **FALSE; they will be similar**

5. True or False: A pre-image is dilated to produce an image. The pre-image and image will have the same angle measurements. **TRUE**